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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/616,145	07/08/2003	Barry L. Berson	SAI.P002 US	2075
32794	7590	07/16/2007		
KOESTNER BERTANI LLP			EXAMINER	
2192 Martin St.			SWARTHOUT, BRENT	
Suite 150				
Irvine, CA 92612			ART UNIT	PAPER NUMBER
			2612	
			MAIL DATE	DELIVERY MODE
			07/16/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/616,145

Applicant(s)

BERSON ET AL.

Examiner

Brent A. Swarthout

Art Unit

2612

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 May 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-47 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 7, 15, 16, 21-23, 31-36, 41, 42 and 44-47 is/are rejected.
- 7) ☒ Claim(s) 3-6, 8-14, 17-20, 24-30, 37-40 and 43 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1,15,21-22 and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamilton et al.

Hamilton discloses an aircraft display system comprising display device 40, processing means 102, image sensing means 20, combining sensor image data with symbols representative of aircraft operational state (Fig. 7), and outputting the combined image with the out the window field of view of an operator (Fig. 7), except for specifically stating that sensor is capable of providing an image obscured from operator point of view. However, since Hamilton discloses that FLIR imaging system 20 can obtain high definition images of the external world, such a system would have been capable of providing images obscured from an operator, if system designers desired not to include obscured images.

Regarding claims 21-22, Hamilton discloses a view in Fig. 7 that appears to include at least 20 degrees to right and left and at least a 40 degree vertical range of view.

Regarding claim 47, the display processor would have performed any necessary cropping, scaling, rotating or translating to conform scenery to an operator's viewpoint, since Hamilton discloses that the external images are slaved to coincide with the optical

axis of the visual system of the pilot (col. 4, lines 39-43), and to correlate the perspective of the display to the canopy structure of the helicopter (col. 6, lines 58-67).

2. Claims 7 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamilton et al. in view of Noble.

Noble teaches desirability of using a flat screen display 12 in an aircraft cockpit environment (abstract).

It would have been obvious to use a flat screen display as suggested by Noble in conjunction with a virtual scene as disclosed by Hamilton, in order to allow additional aircraft data to be presented to a pilot.

3. Claims 2 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamilton et al. and Derderian.

Derderian teaches desirability of displaying different flight displays depending on phase of flight (paragraph 6).

It would have been obvious to display different flight data as suggested by Derderian for different phases of flight in a system as disclosed by Hamilton, in order that a pilot could have received the most pertinent type of information for a particular phase of flight.

4. Claims 31-35 and 41-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamilton et al. and Guell (Flying Infrared for Low-level Operations-FLILO).

Guell discloses desirability of providing different synthetic vision views to pilots at different positions (pages 32-34).

It would have been obvious to use different display views for pilots at different positions as suggested by Guell in conjunction with a synthetic vision aircraft display as suggested by Hamilton, in order that more than one pilot could have received data for their particular viewpoint, thus making navigating safer and easier, depending on which pilot was performing an operation.

Further regarding claim 31, since Guell discloses that each pilot has an independent view corresponding to the pilot's direction of view in a one-to-one correlation with the outside world, the displayed image for each crewmember would have been based on their role in operating the aircraft, such as whether they were a right seat or left seat pilot for a particular flight.

5. Claims 44-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamilton et al. in view of Guell and Smith et al.

Smith teaches desirability in an aircraft display system of switching from a moving map display 202 to windows depicting other aircraft operational data (col. 3, line 64-col. 4, line 6; Fig. 3).

It would have been obvious to switch to different displays as suggested by Smith in conjunction with a flight display system as disclosed by Hamilton and Guell, in order to allow a pilot to retrieve other essential navigation data without having to take focus off of a primary display.

Regarding claim 45, Smith discloses windows comprising navigation data, attitude information, engine data and advisory data (Fig. 4). Choosing to display other data, such as airspeed, would have been obvious to one of ordinary skill in the art,

merely depending on what type of data was most desired by a pilot for a particular situation.

6. Claim 46 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hamilton et al. in view of Guell and Yelton et al.

Yelton teaches desirability of using terrain data when providing a flight display (col. 10, lines 59-61).

It would have been obvious to one of ordinary skill in the art to include terrain data as suggested by Yelton when creating an outside craft display as suggested by Hamilton and Guell, in order to have a more realistic depiction of an outside view.

7. Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hamilton et al. in view of Guell and Derderian.

Claims are rejected for the same reasons as presented above with regard to paragraphs 3 and 4.

8. Claims 3-6,8-14,17-20,24-30,37-40 and 43 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. Regarding remarks filed with the response on 5-8-07, on page 10 it is stated that Hamilton does not provide an entire view using a display device and out the window scene. However, Hamilton discloses that a display view of outside space is generated during night or adverse weather conditions, and that such is centered and projected to the optical axis of the pilot's view (col. 4, lines 22-44). As such, the display

device view would have been viewed in conjunction with the real world view, which would have in combination provided an entire field of view, even though a pilot may not have been able to clearly see what was in the view of the non-display portion.

On page 11 it is stated that a VID view is used when an out of window field of view is not available. However, the HMD or VID view is actually superimposed into the pilot's view of the out of window field, which is always available, it's just that a pilot may not be able to see much in the view at times of darkness or adverse weather. Thus, a pilot would have viewed an artificial view in conjunction with an out of window view.

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brent A. Swarthout whose telephone number is 571-272-2979. The examiner can normally be reached on M-Th from 6:00 to 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel Wu, can be reached on 571-272-2964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Brent A Swarthout  
Primary Examiner  
Art Unit 2612

**BRENT A. SWARTHOUT  
PRIMARY EXAMINER**